

ABSTRACT OF THE DISCLOSURE

SYSTEM AND METHOD FOR VALIDATING A DOCUMENT CONFORMING TO A FIRST SCHEMA WITH RESPECT TO A SECOND SCHEMA

An improved method of validating a document structured in accordance with a first schema with respect to a second schema saves processing time by using information about relationships between the first schema and second schema and the document's conformance to the first schema to determine the document's validity in the second schema. The element type definitions of the XML or other document cast in the first schema are examined to determine if any element conforming to element types in the first schema is always invalid in the second schema. If any content conforming to always invalid element types is present in the document, the document can be immediately invalidated with respect to the second schema without further processing. Any content conforming to element types in the first schema that are subsumed by element types in the second schema can be immediately validated with respect to the second schema. Content conforming to element types in the first schema that are possibly valid in the second schema are examined to determine if the individual elements of the potentially invalid type are valid in the second schema. Automaton representing varying aspects of each schema and their relationship to each other are created to further reduce the processing time required to validate the documents in the new schema.

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